

## Battery:



Those locations circled in blue are at a lower elevation than the Coastal Inundation Landmark Reference Point circled in black. (Top of Walkway between Staten Island Ferry and Governors Island Ferry Terminals)

- A water level reading of 10.9 ft above MLLW at the Battery Gauge will have water touching the Coastal Inundation Landmark Reference Point
- A water level reading of 11.9 ft above MLLW at the Battery Gauge will result in a 1 foot inundation above the Coastal Inundation Reference Point.
- A water level reading of 14.0 ft above MLLW at the Battery Gauge will result in a 3.1 foot inundation above the Coastal Inundation Reference Point. This was the level the water reached during Hurricane Sandy

At 14.2 ft MLLW / 9.1 ft MHHW 10/29/2012 8-10pm

[USGS/FEMA Sandy Storm Tide Mapper](#)

Manhattan (East Side)

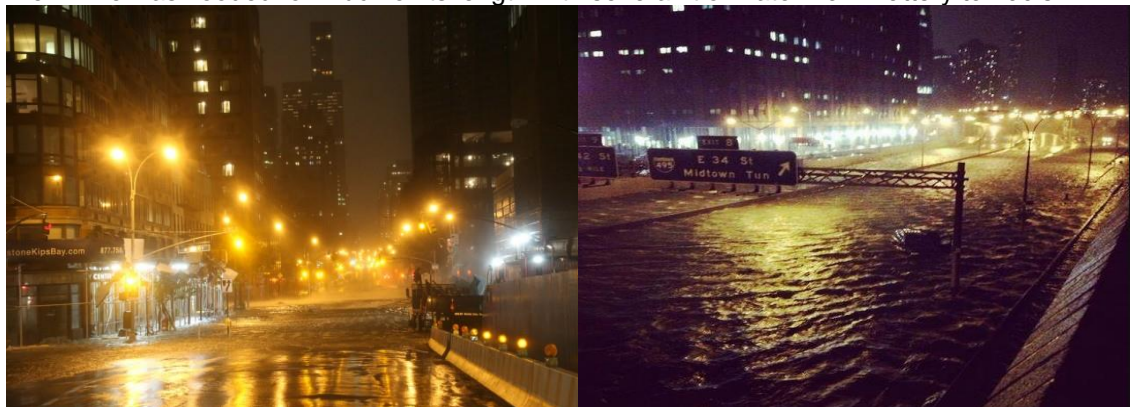
3 to 4 ft inundation at corner of [8<sup>th</sup> st and Avenue C](#) and [20<sup>th</sup> St and Avenue C](#).



3 to 4 ft of inundation along [Con Ed plant at East 14<sup>th</sup> Street and Ave C](#) and [13<sup>th</sup> St and Ave C](#).

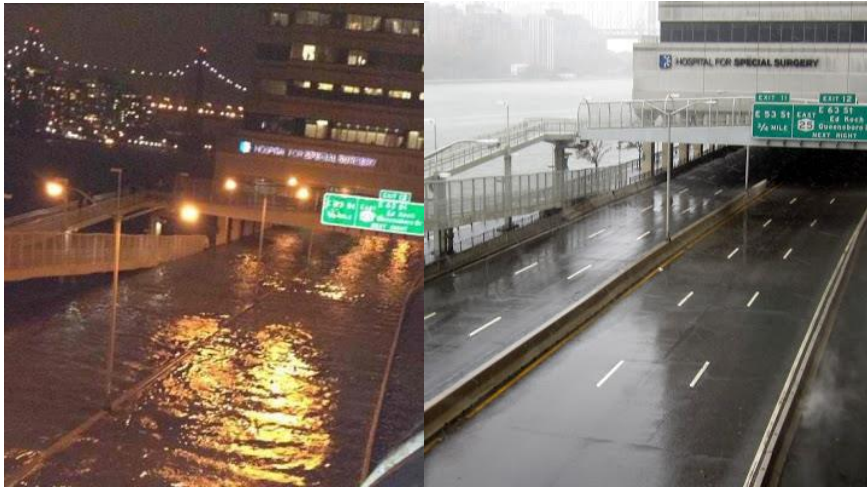


Several ft of inundation along points of [1st Avenue \(34th St\)](#) and [FDR Drive at 34<sup>th</sup> St](#). Fdr/Harlem River Drive was flooded for much of its length with several ft of water from Battery to 190's.





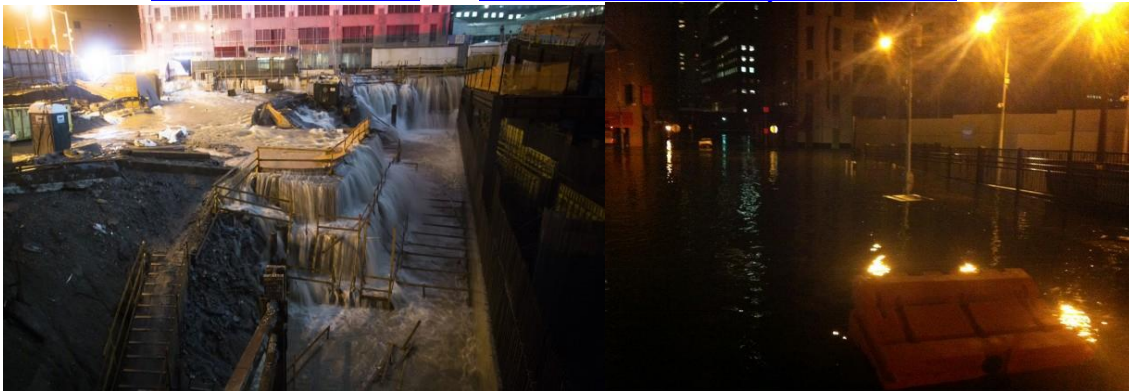
[FDR Drive at 53rd St](#)



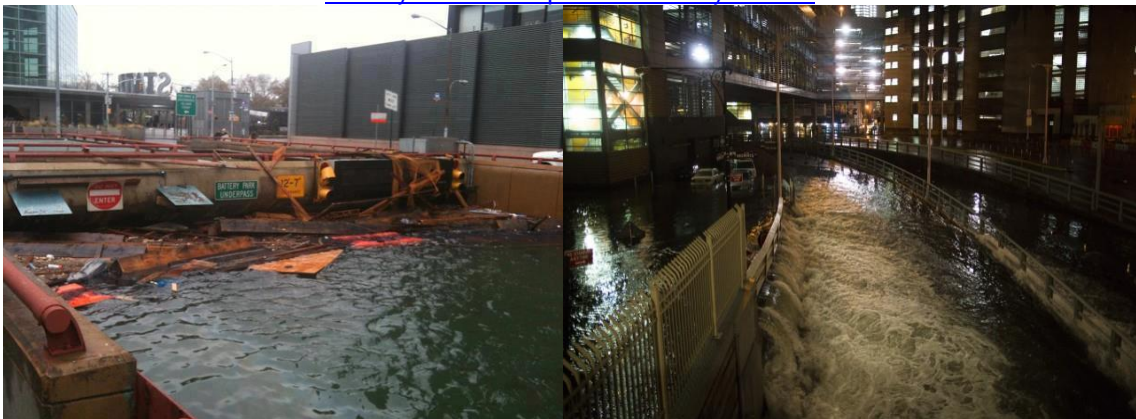
[Manhattan \(Financial District\)](#)

Up to 3 to 5 ft of inundation along the West Side Drive...Battery Park...and FDR Drive in lower Manhattan...with inundation extending several block inland.

Inundation of [Ground Zero Memorial](#) and [Greenwich St and Albany St intersection](#)



Several ft of inundation into [Battery Park underpass at Battery Tunnel](#)

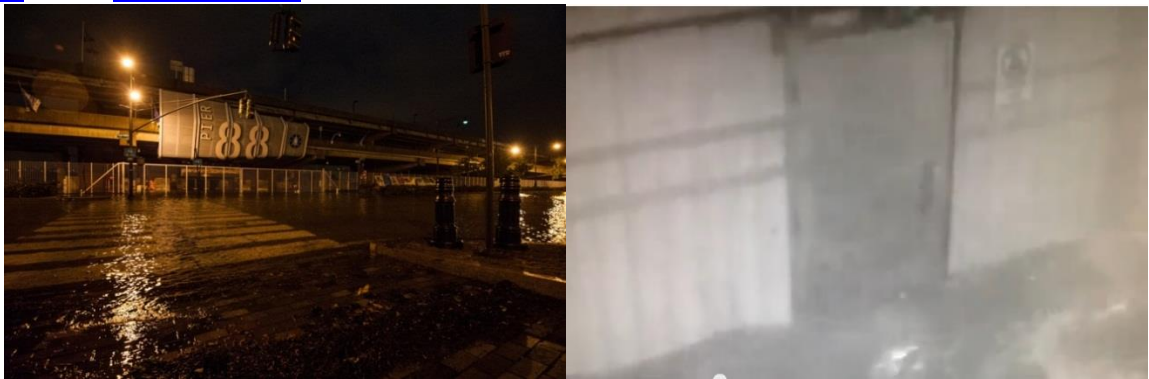


Several ft of inundation a few blocks inland of [South Street Seaport](#)



#### Manhattan (West Side)

Most of the Westside Highway south of 49th street..50's to 70s, and along Riverside Park were inundated with 1 to 3 ft of water. Inundation in front of the Intrepid on [West Side Hwy and 46<sup>th</sup> St](#) and of [Holland Tunnel](#).



#### Queens

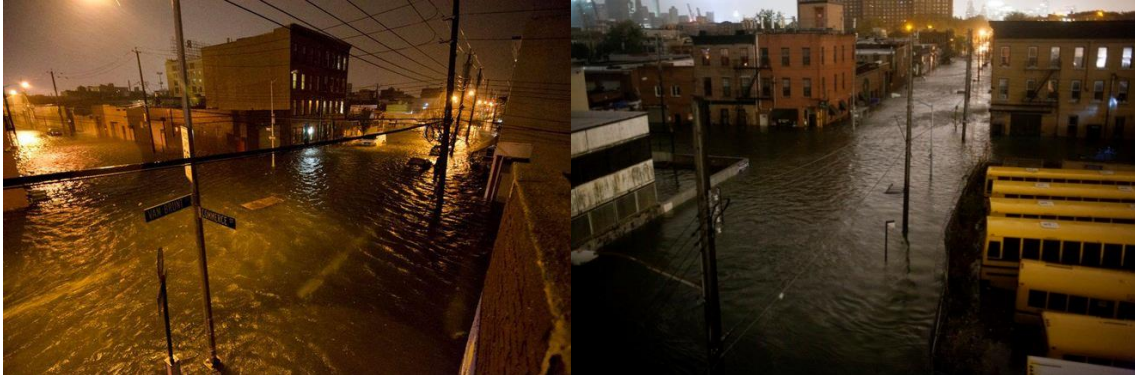
(Hunters Point/ LIC) was inundated with 3 to 6 ft of water several block inland from the East River and Newtown Creek. Picture below from [49<sup>th</sup> Ave and 5<sup>th</sup> St.](#)



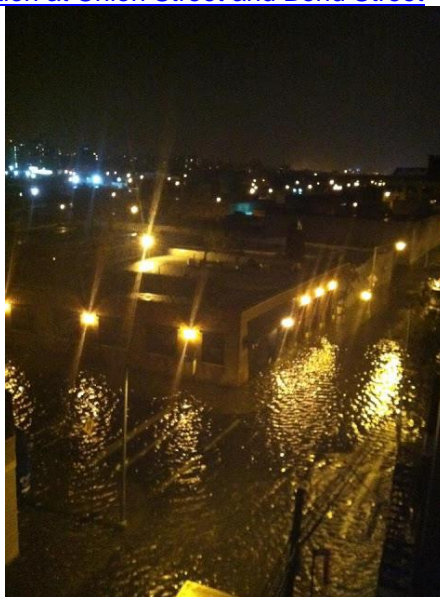


Brooklyn

(Red Hook) was inundated with up to 3 to 6 ft of water. [Van Brunt and Commerce St in Red Hook](#) and [Van Dyke and Dwight](#) inundated with 2 to 4 ft of water



(Gowanus) [1 to 3 ft of inundation at Union Street and Bond Street](#)



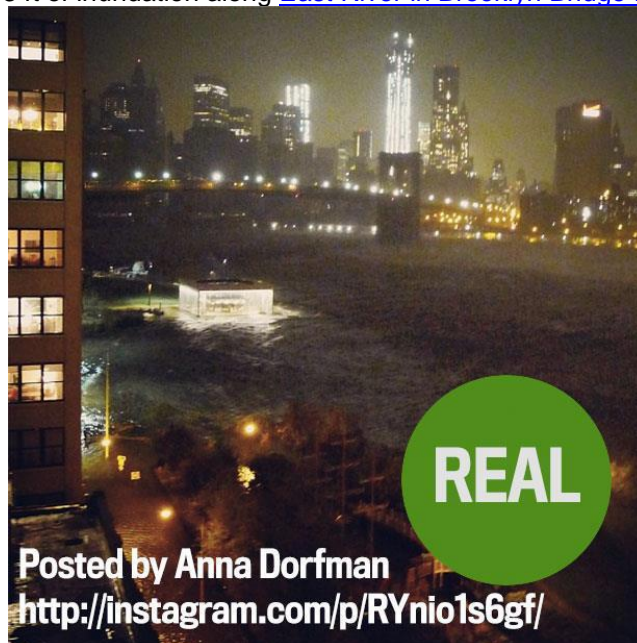
(Gravesend) [86street subway station in Gravesend](#) inundated with 1-3 ft of water.



(Dumbo) 1-3 ft of inundation along East River in [Dumbo neighborhood under the Manhattan Bridge](#)



(Brooklyn Heights) 1-3 ft of inundation along [East River in Brooklyn Bridge Park](#)





(Bay Ridge) – Several feet of inundation on [Belt Parkway](#) Eastbound by the Verrazanno



At 10 ft MLLW / 4.9 ft MHHW 9/12/1960

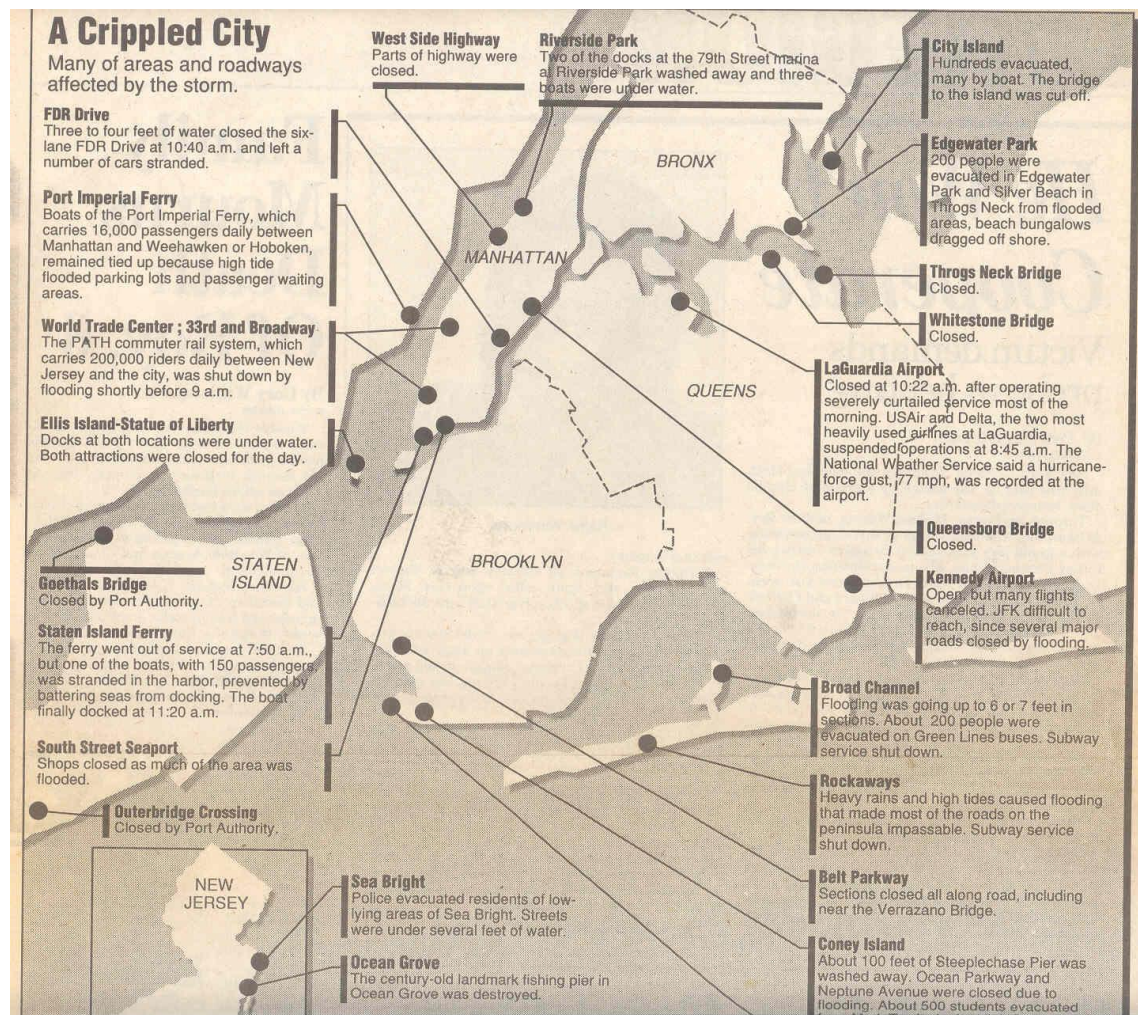
Lower Manhattan in 1960 with Hurricane Donna. [WTC site \(West and Cortland street\)](#)



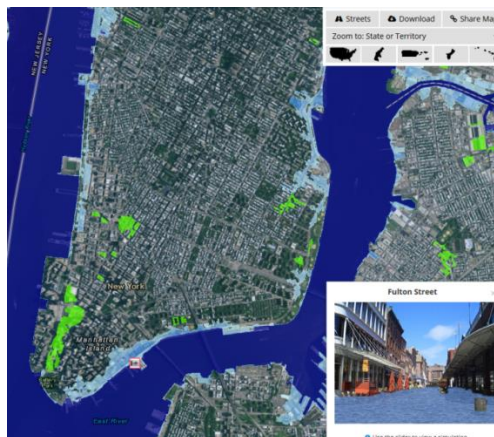


At 9.7 ft MLLW / 4.6 ft MHHW (December 1992 Nor'Easter)

## Manhattan

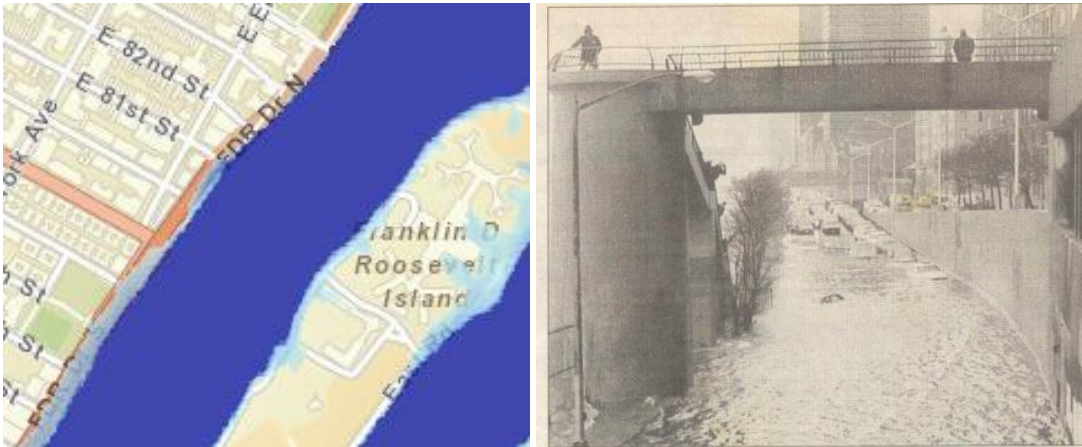


## South Street Seaport





FDR Drive – Flooding over car rooftops at [82nd St underpass](#)

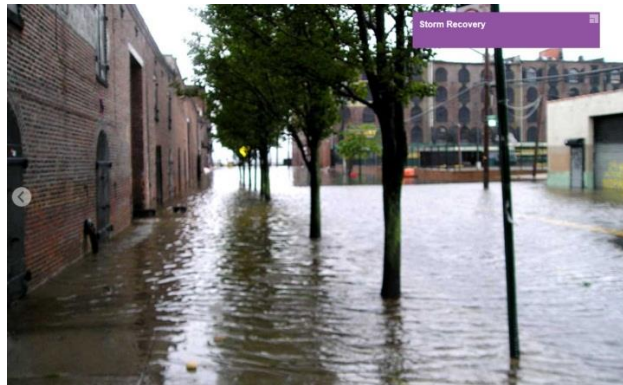


**At 9.5 ft MLLW / 4.4 ft MHHW**

[USGS/FEMA Irene Storm Tide Mapper](#)

Brooklyn (Red Hook)

1 to 3 ft of water inundated streets about 100 yards inland along portions of [Gowanus Bay/Canal](#) in Red Hook. (830-900am 8/28/2011)



Manhattan (Battery)-

1-2 ft of inundation along the [promenade in Battery Park City.](#)

1 ft of water inundation over wall of [marina in front of Mercatile exchange](#) (830-900am 8/28/2011)

Manhattan (East Side)

[FDR closed in both directions at Houston Street](#) (830-930am 8/28/2011)

About 1 ft of water inundation on the streets in [South Street Seaport.](#)

Manhattan (West Side)

[Southbound Henry Hudson Drive closed in Harlem](#) due to 3 ft of water over the roadway. (Freshwater/Coastal Flood)(1010am 8/28/2011)

[North part of Holland Tunnel](#) closed due to (Freshwater/Coastal Flood)(846am 8/28/2011)

[West Village Houses](#) – Part of 10<sup>th</sup> Ave closed with 2 cars stuck in water. (Freshwater/Coastal Flood)(850am 8/28/2011)

**At 8.9 ft MLLW / 3.8 ft MHHW**

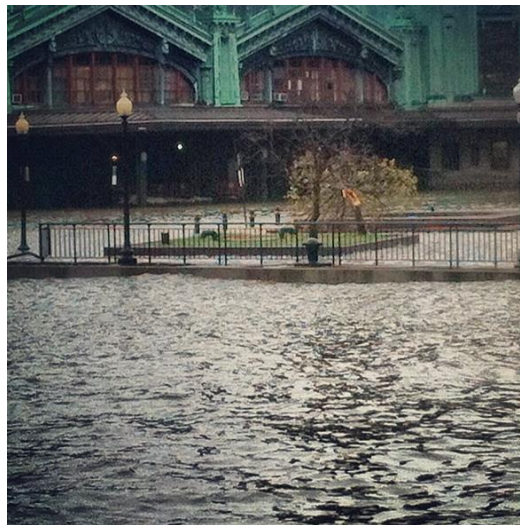
Brooklyn

1-2 ft of inundation on [Van Brunt Street in Red Hook, Brooklyn](#)



Hoboken

1-2 ft of inundation at [Hoboken Train Station](#)



**At 8.8 ft MLLW / 3.7 ft MHHW**

The [Path Train was closed at Hoboken](#).

[Route 7 in Kearney](#) was closed at multiple locations due to coastal flooding.  
(536 pm EST on 3/13/2010)

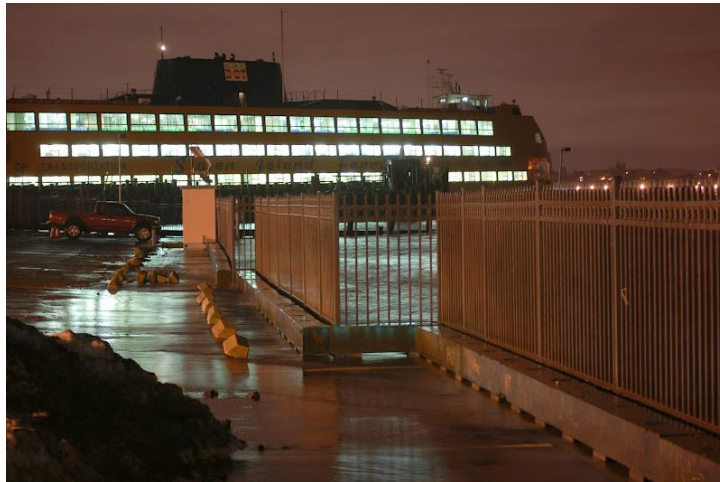


At 8.5 ft MLLW / **3.4 ft MHHW**

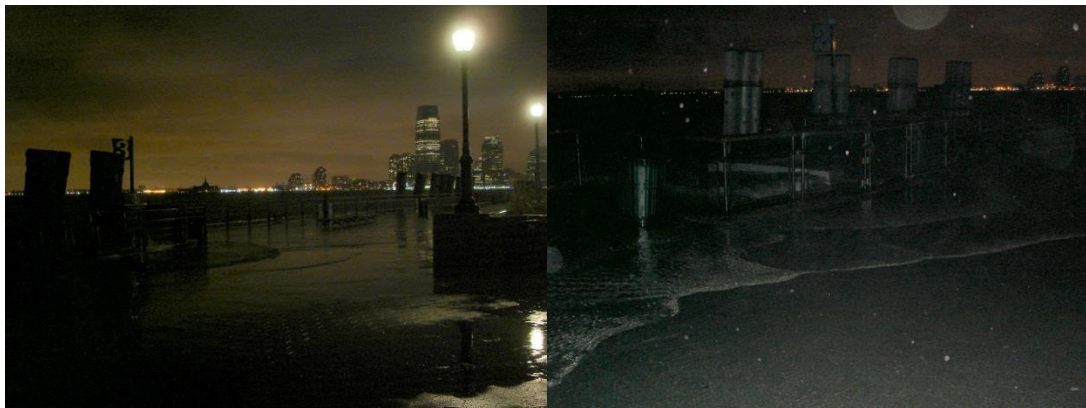
[Battery Park seawall](#) is covered by 818 pm.



Water reaching [Battery tide gauge house](#) at 822 pm.



Surge washing over the [seawall](#), looking toward Governor's Island, Staten Island, Jersey City and covering. [Boardwalk](#) covered by around 1 ft of water 830 pm facing the Harbor. (3/13/2010)





Flooded security screening tent for [Liberty Island Ferry at Fort Clinton](#). (3/13/2010)



**At 7.8 ft MLLW / 2.7 ft MHHW**

Manhattan – Minor flooding on [FDR at 79<sup>th</sup> street](#). Water coming up through manhole. (2/8/2016)

**At 7.7 ft MLLW / 2.6 ft MHHW**

Manhattan

Inundation on the FDR Drive. Elevated East River waters backed up into the catch basins and storm sewers causing several manholes on the northbound FDR Drive to have their covers moved out of place with water bubbling and pouring out on to the roadway. We had partial road closures on the [FDR Drive in the upper 80's and lower 90's](#) until the waters receded. (6/4/12 900-1030pm)

Staten Island

East Shore- Inundation of [40 Hempstead Ave](#) a few blocks off New York Bay in the [Midland Beach section](#) (6/4/12 918pm)



**At 7.5 ft MLLW / 2.4 ft MHHW**

Manhattan – Water begins to creep over [lower walkway at South Street near Maiden Lane](#) along East River...near South Street Seaport. (1/3/2014)



**At 6.8 ft MLLW / 1.7 ft MHHW**

Staten Island

West Shore- Inundation near [Travis Ave and Victory Blvd](#) in the [Fresh Kills](#) area. (6/3/12 830pm)

**At 6.7 ft MLLW / 1.6 ft MHHW**

Manhattan – Major Flooding (1 to 3 feet) on the FDR Drive from about 700 to 1000 pm in several spots due to the combination of heavy rainfall occurring as minor coastal flooding benchmarks were being reached. Picture below adjacent to [125<sup>th</sup> St.](#)



**At 6.5 ft MLLW / 1.4 ft MHHW + heavy rain at time. 4-6 inches 36 hr rain total**

Brooklyn Heights - 2 ft of water in parking lot at [intersection of Jay Street and John Street](#). (4/30/2014 7pm)

**At 6.4 ft MLLW / 1.3 ft MHHW + SW winds of 40-45 g 60 mph**

Brooklyn – Splashover of water from NY harbor onto [Belt Parkway in Brooklyn](#).

